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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,029	12/05/2003	Xiongxin Ying	8385/91094 (031285-US)	1009
24628	7590	03/30/2005	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			YEAGLEY, DANIEL S	
			ART UNIT	PAPER NUMBER
			3611	

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	YING, XIONGXIN	
Examiner Daniel Yeagley	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 05 December 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) \_\_\_\_\_ is/are rejected.  
 7) Claim(s) 1-5 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 05 December 2003 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____<br>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)<br>6) <input type="checkbox"/> Other: _____ |
|---|--|

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because the form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.

Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(a) as being anticipated by Strange '627.

Strange shows a folding device for bicycle body and transom comprising a transom jointed to a bicycle body by means of a hinge (figure 1) characterized in that the folding device has an eccentric axle 93 inserted into a hole on a head of a tightening lug bolt 86 and body of the bicycle, a transom 80 having a groove 92 with a nut embedded (figure 10) and being engaged with the end of the lug bolt in order to joint the transom with the body, wherein the eccentric axle is connected to a lever 84 (figure 9).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strange 627 in view of Kurohori et al '835.

Strange as stated above disclosed a folding device characterized by an eccentric axle inserted into a hole of a tightening lug bolt, wherein the locking mechanism of the folding device includes a tightening bolt and nut embedded into a groove on a transom in order to joint the transom with the body (figure 8 – 10), but failed to show a torsion spring fixed to the body and disposed on the lug bolt.

Kurohori shows a locking mechanism for a folding bicycle which incorporates a tightening bolt 363 and nut 364 embedded into a groove 358a on a transom in order to joint the transom with a body 347 (figure 32, 34b, column 20), wherein the locking mechanism utilizes a torsion spring fixed to the body and disposed on the lug bolt similar to torsion spring setup shown by applicant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the locking mechanism of Strange lug bolt apparatus with an additional torsion spring fixed to the body and disposed on the bolt as a means to set the holding bolt, as suggested by Kurohori to allowed the bolt to swing in a direction against the resilient force of the torsion spring so as to come off from the horizontal groove in order to more quickly released or tightened the quick release mechanism only dependent upon users preference.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strange 627 in view of Yielding '365.

Strange as stated above disclosed a folding device characterized by an axle inserted into a hole of a tightening lug bolt, wherein the locking mechanism includes the tightening bolt engaged with a nut engaged with a groove on a transom in order to joint the transom with the body (figure 8 – 10), but failed to show a head of the nut being fastened to the lug bolt by a screw.

Yielding shows a folding device having an axle inserted into a hole of a tightening lug bolt, wherein the locking mechanism includes a head of a nut 65 embedded into a groove of a transom, (figure 3, column 5, line 10-19), such that the head of the nut is fastened to the lug bolt by a screw as claimed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the locking mechanism of Strange lug bolt apparatus with an additional retaining means in the head of the nut to lock the nut to the bolt as suggested by Yielding locking mechanism, wherein a set screw is utilized to further retain a nut on the bolt as is old and well known in the art.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hon '589 shows a folding device with an eccentric axle in a locking mechanism. Hon '606 shows a folding device with locking mechanism. Huang '646 shows a folding device with bolt and nut engaged with a groove. Roesinger et al '801 shows a lock means with a torsion spring disposed on a bolt.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Yeagley whose telephone number is **703 - 305 - 0838**.

The examiner can normally be reached on Mon. - Fri; first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D Morris can be reached on **703 - 308 - 0629**. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

In the near future; because of a pending move of the examining corps to a new campus, the examiner and SPE telephone numbers will change to **571 - 272 - 6655** and **571 - 272 - 6651**; respectively.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.Y.

RUTH ILAN  
PRIMARY EXAMINER  
  
3/21/05